

AMENDMENTS TO THE CLAIMS

1-3. (Canceled)

4. (Currently Amended) An optical recording medium comprising:

a first substrate having first pits on one face thereof;

a first reflective layer formed on the face bearing the first pits of the first substrate in a manner so as to reflect lands and recesses of the first pits;

a second substrate formed on the first reflective layer, with second pits being formed on a face on the side opposite to the first reflective layer;

a second reflective layer formed on the face bearing the second pits of the second substrate in a manner so as to reflect lands and recesses of the second pits; and

a cover layer formed on the second reflective layer,

wherein a first pit depth d_1 , which is a difference between lands and recesses of the first reflective layer, a wavelength λ of signal-reproducing laser light and a refractive index n_1 of the second substrate satisfy the following relational expressions,

$$\lambda/(5n_1) \leq d_1 \leq \lambda/(3n_1) \text{ and } d_1 \neq \lambda/(4n_1).$$

wherein a second pit depth d_2 , which is a difference between lands and recesses of the second reflective layer, the wavelength λ of signal-reproducing laser light and a refractive index n_2 of the cover layer satisfy the following relational expressions,

$$\lambda/(5n_2) \leq d_2 \leq \lambda/(3n_2) \text{ and } d_2 \neq \lambda/(4n_2).$$

wherein the first pits of the first substrate and the second pits of the second substrate are

formed by a combination of concave-shaped pits and convex-shaped pits or a combination of convex-shaped pits and concave-shaped pits,

~~The optical recording medium according to claim 3,~~

wherein the first pit depth d_1 is a difference between lands and recesses of the first reflective layer, and the second pit depth d_2 is a difference between lands and recesses of the second reflective layer, and

wherein the first pit depth d_1 and the second pit depth d_2 satisfy the following relational expressions, with respect to the refractive index n_1 of the second substrate, the refractive index n_2 of the cover layer and the wavelength λ of signal-reproducing laser light,

$$4n_1d_1 < \lambda < 4n_2d_2.$$

5. **(Currently Amended)** An optical recording medium comprising:

a first substrate having first pits on one face thereof;

a first reflective layer formed on the face bearing the first pits of the first substrate in a manner so as to reflect lands and recesses of the first pits;

a second substrate formed on the first reflective layer, with second pits being formed on a face on the side opposite to the first reflective layer;

a second reflective layer formed on the face bearing the second pits of the second substrate in a manner so as to reflect lands and recesses of the second pits; and

a cover layer formed on the second reflective layer,

wherein a first pit depth d_1 , which is a difference between lands and recesses of the first

reflective layer, a wavelength λ of signal-reproducing laser light and a refractive index n_1 of the second substrate satisfy the following relational expressions,

$$\lambda/(5n_1) \leq d_1 \leq \lambda/(3n_1) \text{ and } d_1 \neq \lambda/(4n_1),$$

wherein a second pit depth d_2 , which is a difference between lands and recesses of the second reflective layer, the wavelength λ of signal-reproducing laser light and a refractive index n_2 of the cover layer satisfy the following relational expressions,

$$\lambda/(5n_2) \leq d_2 \leq \lambda/(3n_2) \text{ and } d_2 \neq \lambda/(4n_2),$$

wherein the first pits of the first substrate and the second pits of the second substrate are formed by a combination of concave-shaped pits and convex-shaped pits or a combination of convex-shaped pits and concave-shaped pits,

~~The optical recording medium according to claim 3,~~

wherein the first pit depth d_1 is a difference between lands and recesses of the first reflective layer, and the second pit depth d_2 is a difference between lands and recesses of the second reflective layer, and

wherein the first pit depth d_1 and the second pit depth d_2 satisfy the following relational expressions, with respect to the refractive index n_1 of the second substrate, the refractive index n_2 of the cover layer and the wavelength λ of signal-reproducing laser light:

$$4n_2d_2 < \lambda < 4n_1d_1.$$

6-7. (Canceled)

8. **(Currently Amended)** An optical recording medium comprising:

a first substrate having first pits on one face thereof;

a first reflective layer formed on the face bearing the first pits of the first substrate in a manner so as to reflect lands and recesses of the first pits;

a second substrate formed on the first reflective layer, with second pits being formed on a face on the side opposite to the first reflective layer;

a second reflective layer formed on the face bearing the second pits of the second substrate in a manner so as to reflect lands and recesses of the second pits; and

a cover layer formed on the second reflective layer,

wherein a first pit depth d_1 , which is a difference between lands and recesses of the first reflective layer, a wavelength λ of signal-reproducing laser light and a refractive index n_1 of the second substrate satisfy the following relational expressions,

$$\lambda/(5n_1) \leq d_1 \leq \lambda/(3n_1) \text{ and } d_1 \neq \lambda/(4n_1).$$

wherein a second pit depth d_2 , which is a difference between lands and recesses of the second reflective layer, the wavelength λ of signal-reproducing laser light and a refractive index n_2 of the cover layer satisfy the following relational expressions,

$$\lambda/(5n_2) \leq d_2 \leq \lambda/(3n_2) \text{ and } d_2 \neq \lambda/(4n_2).$$

wherein both of the first pits of the first substrate and the second pits of the second substrate are formed by a combination of concave-shaped pits or a combination of convex-shaped pits,

The optical recording medium according to claim 7,

wherein the first pit depth d_1 is a difference between lands and recesses of the first reflective layer, and the second pit depth d_2 is a difference between lands and recesses of the second reflective layer, and

wherein the first pit depth d_1 and the second pit depth d_2 satisfy the following relational expressions, with respect to the refractive index n_1 of the second substrate, the refractive index n_2 of the cover layer and the wavelength λ of signal-reproducing laser light,

$$\lambda < 4n_1d_1 \text{ and } \lambda < 4n_2d_2.$$

9. (Currently Amended) An optical recording medium comprising:

a first substrate having first pits on one face thereof;

a first reflective layer formed on the face bearing the first pits of the first substrate in a manner so as to reflect lands and recesses of the first pits;

a second substrate formed on the first reflective layer, with second pits being formed on a face on the side opposite to the first reflective layer;

a second reflective layer formed on the face bearing the second pits of the second substrate in a manner so as to reflect lands and recesses of the second pits; and

a cover layer formed on the second reflective layer,

wherein a first pit depth d_1 , which is a difference between lands and recesses of the first reflective layer, a wavelength λ of signal-reproducing laser light and a refractive index n_1 of the second substrate satisfy the following relational expressions,

$$\lambda/(5n_1) \leq d_1 \leq \lambda/(3n_1) \text{ and } d_1 \neq \lambda/(4n_1).$$

wherein a second pit depth d_2 , which is a difference between lands and recesses of the second reflective layer, the wavelength λ of signal-reproducing laser light and a refractive index n_2 of the cover layer satisfy the following relational expressions,

$$\lambda/(5n_2) \leq d_2 \leq \lambda/(3n_2) \text{ and } d_2 \neq \lambda/(4n_2),$$

wherein both of the first pits of the first substrate and the second pits of the second substrate are formed by a combination of concave-shaped pits or a combination of convex-shaped pits,

The optical recording medium according to claim 7,

wherein the first pit depth d_1 is a difference between lands and recesses of the first reflective layer, and the second pit depth d_2 is a difference between lands and recesses of the second reflective layer, and

wherein the first pit depth d_1 and the second pit depth d_2 satisfy the following relational expressions, with respect to the refractive index n_1 of the second substrate, the refractive index n_2 of the cover layer and the wavelength λ of signal-reproducing laser light,

$$4n_1d_1 < \lambda \text{ and } 4n_2d_2 < \lambda.$$

10. **(Currently Amended)** The optical recording medium according to claim [[2]] 4, wherein the second substrate is formed by using ultraviolet-ray curable resin or photo-curing resin.

11. **(Currently Amended)** The optical recording medium according to claim [[2]] 4,

wherein at least either the first pits of the first reflective layer or the second pits of the second reflective layer include information for tracking polarity.

12. **(Original)** The optical recording medium according to claim 11, wherein the information for tracking polarity is recorded as winding pit rows.

13. **(Original)** The optical recording medium according to claim 12, wherein the winding of the winding pit rows is formed by frequency modulation.

14. **(Currently Amended)** The optical recording medium according to claim [[2]] 4, further comprising:

a third substrate formed on the second reflective layer in place of the cover layer, and has third pits formed on a face on the side opposite to the second reflective layer, with a refractive index of n_2 ;

a third reflective layer formed on the face bearing the third pits of the third substrate in a manner so as to reflect lands and recesses of the third pits; and

a cover layer formed on the third reflective layer,

wherein ~~the~~ a third pit depth d_3 , which is a difference between lands and recesses of the third reflective layer, the wavelength λ of signal-reproducing laser light and the refractive index n_3 of the cover layer satisfy the following relational expressions,

$$\lambda/(5n_3) \leq d_3 \leq \lambda/(3n_3) \text{ and } d_3 \neq \lambda/(4n_3).$$

15. **(Canceled)**

16. **(New)** The optical recording medium according to claim 5, wherein the second substrate is formed by using ultraviolet-ray curable resin or photo-curing resin.

17. **(New)** The optical recording medium according to claim 5, wherein at least either the first pits of the first reflective layer or the second pits of the second reflective layer include information for tracking polarity.

18. **(New)** The optical recording medium according to claim 17, wherein the information for tracking polarity is recorded as winding pit rows.

19. **(New)** The optical recording medium according to claim 18, wherein the winding of the winding pit rows is formed by frequency modulation.

20. **(New)** The optical recording medium according to claim 8, wherein the second substrate is formed by using ultraviolet-ray curable resin or photo-curing resin.

21. **(New)** The optical recording medium according to claim 8, wherein at least either the first pits of the first reflective layer or the second pits of the second reflective layer include

information for tracking polarity.

22. **(New)** The optical recording medium according to claim 21, wherein the information for tracking polarity is recorded as winding pit rows.

23. **(New)** The optical recording medium according to claim 22, wherein the winding of the winding pit rows is formed by frequency modulation.

24. **(New)** The optical recording medium according to claim 9, wherein the second substrate is formed by using ultraviolet-ray curable resin or photo-curing resin.

25. **(New)** The optical recording medium according to claim 9, wherein at least either the first pits of the first reflective layer or the second pits of the second reflective layer include information for tracking polarity.

26. **(New)** The optical recording medium according to claim 25, wherein the information for tracking polarity is recorded as winding pit rows.